

ABSTRACT

Solution for Etching Copper Surfaces and Method of Depositing Metal on Copper Surfaces

A solution for etching copper or a copper alloy for producing a copper surface having the brightest possible finish for a metallization that is to follow is described. The solution has a pH on the order of 4 or less and is free of sulfate ions. It comprises: a) at least one oxidizing agent selected from the group comprising hydrogen peroxide and peracids, b) at least one substance selected from the group comprising aromatic sulfonic acids and salts of the aromatic sulfonic acids and optionally c) at least one N-heterocyclic compound. Further a method for depositing metal onto the surface of copper or a copper alloy is described. Said method comprises the following method steps: a) contacting the surface with the solution in accordance with the invention and b) coating the surface with at least one metal. The solution and the method are especially suited in the production of electric circuit carriers, more specifically for semiconductor manufacturing.